

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Shafiq S. Amawi

General Information

Name:	General Electric Company
Address:	903 Russell Cave Pike Lexington, KY 40505-3407
Date application received:	December 1, 1997
SIC/Source description:	3229/glass manufacturing.
AFS Plant I.D.:	21-067-00033
EIS #:	102-1160-0033
Application log number:	F393
Permit number:	V-99-008

Application Type/Permit Activity

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
___Administrative	<input checked="" type="checkbox"/> Title V
___Minor	<input checked="" type="checkbox"/> Synthetic minor
___Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

Compliance Summary

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

Applicable Requirements list

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other

Miscellaneous

- ☐ Acid rain source
- ☒ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application

Emissions Summary

Pollutant	Actual (tpy)	Potential (tpy)
PM10	150.52	176.47
SO ₂	46.087	46.087
NOx	567.69	567.69
CO	41.21	41.21
VOC	14.492	14.492
LEAD	0.000	0.000
HAP \geq 10 tpy (by CAS)		

Source Process Description:

General Electric Company (GE) produces envelopes for incandescent light bulbs. The raw materials are received in packages and bulk and are unloaded into a shuttle conveyer which transports the materials to the respective storage facilities. Once the raw materials are unloaded into the silos, conveyers transport the materials to weigh scales, a mixer, and mixer hopper where the material is weighed, mixed, and stored for inclusion into the furnace feed.

Once the raw materials are mixed in a batch process, they are fed into the furnace on a continuous basis to maintain the level of molten glass in the furnace. The furnace is a side fired, regenerative furnace which uses electric boost to aid in the melting of the glass.

The furnace has three forehearths and three process lines, each process line associated with the appropriate forehearth. Each process line consists of forming, annealing, cooling, acid etching to frost the bulbs, inspection packaging, and shipment. The forming line receives a continuous ribbon of glass and presses and blows segments of the ribbon into molds to form a bulb. The annealing consists of processing the formed bulbs through controlled heat to release any stress incurred during the forming.